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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/160,312	09/25/1998	YUSHI JINNO	5586D-6921	6189

26021 7590 06/27/2003

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EXAMINER

PARKER, KENNETH

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 06/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/160,312	JINNO ET AL.	
	Examiner	Art Unit	
	Kenneth A Parker	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 23 April 2003.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-19 is/are pending in the application.

4a) Of the above claim(s) 7-14 is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-6 and 15-19 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some * c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____

4) ☐ Interview Summary (PTO-413) Paper No(s). _____

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/23/03 has been entered.

Claim Rejections - 35 USC § 112

Claims 1-6 and 15-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The language "functioning as a shielding wire" is indefinite, as there is no established function called "shielding", and there are an arbitrary number of thing that can be construed as shielding. The typical terms antistatic and over voltage protection, are established, whereas the term protection wire is not. Any wire is coupled inductively and capacitively to the neighboring wires. Does this mean any wire constitutes a shielding wire? Further, what is being shielded from what? Any wire shields the layers below them from all sorts of things. Therefore, the boundaries of this language cannot be reasonably ascertained.

In claim 4, the language "similar" is indefinite". For examining purposes, any layers which conduct are similar"

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-5 and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim 5973658 in view of Ha 6081307 and Matsunagna et al 5949502

The primary reference discloses a device with TFTs in the display and driving regions, and wires out side of the driving areas. Lacking is the "wire" using more than one layer form the TFTs. The secondary reference Ha teaches a floating gate TFT structure that uses two or more layers from the TFT on the top part of the transistor (the

drain wiring and the doped semiconductor layer. The top portion of the floating gate transistor can be considered the end of a wire which terminates at the channel and gate insulation layers, so can be construed as part of a "wire" (it is assumed that the channel region of a TFT is cannot be construed as a wire, so the numerous references with TFTs with the same structure as the display portion used as antistatic were not applied. The Ha reference teaches that their structure has the benefit of "excellent performance" at the top of column 2. Therefore it would have been obvious to one of ordinary skill, in the device of Ha '658, to employ the TG protective devices as the devices of Ha'658 for the benefit of "excellent performance".

The Matsunaga et al reference shows peripheral multilayer structure (multiple drain metal) as an antistatic layer, teaching that these structures ther short-circuiting lines SHc are formed in the mounting portion below the drive IC. Matsunaga indicates that these short-circuiting lines are effective in preventing the terminal breakage caused by electrostatic sparks. Therefore it would have been obvious to one of ordinary skill, in the device of Ha '658, to employ the SHc protective devices as the devices of Matsunaga for protection for the benefit of "being effective in preventing terminal breakage".

Claim 6 is are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim 5973658, Ha 6081307 and Matsunaga et al 5949502as applied above, and further in view of Hu et al 5517344.

Lacking from the references as modified above is the spacing of .8mm or more between the terminals and the driving transistors. Kim et al is silent on the spacing between the terminal C3-5 and the driving circuits. The reference does show some "distance", but is not clear how much. As most LCDs were 15 inches at the time, some reasonable distance would have been communicated by the Ha reference to those of ordinary skill, as .8 mm is a tiny amount, and the drawing shows a reasonable amount. Further, as squishing the terminals unnecessarily close to the drivers would have clear to anyone that there would danger of unnecessary damage to the drivers with the connecting process by such an extreme and unnecessary placement, it would have been obvious to one of ordinary skill not to do so. Further, for the benefit of Reduced Capacitive coupling taught by Hu, employing the seal would have required spacing of at least .8mm to fit the seal. Therefore it would have been obvious to one of ordinary skill to space the terminal .8 or more to enable a seal as taught by Hu for reduced capacitive coupling enabled by the different encapsulant.

Allowable Subject Matter

Claim 15 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action. This presumes the claim is reasonably amended to specifically define the protective function provided.

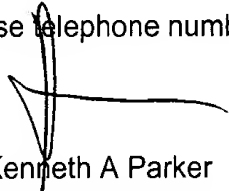
Response to Arguments

Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth A Parker whose telephone number is 703-305-6202. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0956.



Kenneth A Parker
Primary Examiner
Art Unit 2871

June 25, 2003